

REMARKS

Reconsideration and allowance of the claims of the present application are respectfully requested. Claims 30-57 and 59-86 are presently pending.

Before addressing the outstanding rejections, it is to be noted applicants have amended Claim 30 by placing a phrase which was in the preamble into the main body of the claim. More specifically, Claim 30 has been amended and since the above amendment does not introduce new matter into the originally filed application, entry thereof is respectfully requested.

In the outstanding Official Action, Claims 30-44, 46-57 and 59-86 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 3,686,240 to Kawada et al. ("Kawada") as further evidenced by the specification at page 10, lines 3-21 and "Fractionation of Palm Oil" by Deffense et al. ("Deffense"), JAOCS, Vol 62, No.2, page 376-385, 1985.

Applicants have amended the claims and are submitting herewith a Declaration of Bernard Cleenewerck ("Declaration"), which when considered with the comments hereinbelow, are deemed to place the present case in condition for allowance. Favorable action is respectfully requested.

It should be noted at the outset that the experiments in the Declaration were either conducted by declarant or under the directed supervision and control of the declarant. In addition, the Declaration refers to passages in Bailey's Industrial Oil and Fat Products, Vol. 3, 5th Ed, Wiley-Interscience Publications, NY, NY 368-391 ("Bailey's") to provide context of some of the statements in the Declaration.

Applicants respectfully submit that the present invention is patentable over the cited references, either alone or in combination.

The present invention is directed, inter alia, to a process for the production of a fat composition which comprises subjecting to catalytic hydrogenation a starting fat composition to obtain a first fat having a trans fatty acid content of less than 15 wt. % and an increase of C18-0 of less than 1 wt. %, said first fat being incorporated in the fat composition, wherein said fat composition is suitable as non-tempering confectionery fat or bakery fat, wherein said starting fat composition contains palm oil or a palm oil fraction and has the following composition (a) a glyceride composition with

- a S₂U content between 47 and 75 wt. %,
- a SU₂ + U₃ content < 40 wt. %,
- a S₃ content between 1 and 15 wt. %,
- a diglyceride content of 3 to 12 wt. %,

the glyceride contents being expressed as wt. % with respect to the total amount of di-and triglycerides in which S means a saturated fatty acid with a hydrocarbon chain length of 14-24 carbon atoms and U means unsaturated fatty acid with a hydrocarbon chain length of 14-24 carbon atoms; and (b) a total content of unsaturated fatty acids of less than 55 wt. %.

In other words, the subject matter of the present invention is directed to a fat that is a non-tempering fat.

Kawada, in contrast, discloses a process for preparing a cocoa butter substitute from palm oil. The resulting product in Kawada is a tempering fat composition. See Column 1, lines 15-25 of Kawada.

Kawada discloses a process for the production of a cacao butter substitute (see col. 1, line 16) from palm oil, in which the palm oil is subjected to a pre-treatment process to prepare a palm oil mid fraction. To obtain the palm oil mid fraction, in a first step, the palm oil

is dissolved, crystallized and the high melting fraction is filtered off; in a second step, the filtrate is cooled, a second crystallization and filtration is carried out, and the thus obtained fluid fraction is further used. This fluid fraction is called the middle melting point fraction. See “Bailey’s Industrial Oil and Fat Products, Vol. 3, 5th Ed., Wiley-Interscience Publication, NY, NY, 368-391 (1996) (hereinafter “Bailey’s”). On page 382 and in particular page 383, lines 4-7, it is disclosed that cocoa butter substitutes can be produced using a palm mid fraction, which is the same as a middle melting point fraction of palm oil. Further, on the bottom of page 381, it is explained that palm oil is a suitable source for the desirable SUS triglycerides useful in the preparation of cocoa butter substitutes. Bailey discloses the stable crystal form of a tempering fat “is the beta-type (SUS) which means that the fat needs tempering. See Bailey’s, table 9.11, p 381 and last paragraph on 383, which refers to CBE and their beta polymorphs”.

In support of the rejection, the Office Action alleges that the recitation in Claim 30 regarding the tempering process carried no weight for patentability since it was recited in the preamble. Applicants, in the amendment, have rewritten Claim 30 to recite that the resulted fat composition from the claimed process of non-tempering fat is recited in the main body of the claim. Thus, the USPTO must give weight to the language in the current amendment.

As described in Claim 30, the fat produced in accordance with the present invention is a non-tempering fat.

The Official Action moreover contends that the disclosure in Column 1, lines 15-25 of Kawada refers to the fractionation of palm oil to obtain palm mid fraction, and it alleges that it is not a tempering step.

However it should be noted that the tempering process is an independent, separate process and is different from the production process of the palm mid fraction. In this regard,

tempering refers to a heating and cooling step to which a fat composition is subjected before using it in a final product in confectionery fats. It is not the palm mid fraction that is subjected to tempering, but rather the final product which contains the palm mid fraction that is subjected to tempering. Further, not all fats are tempering fats. For example, some fat compositions are not tempering fats. The fat compositions prepared in accordance with the present process is one such fat. On the other hand, the fat prepared by Kawada et al. is a tempering fat.

There are many differences between the process of the present invention and the process of the prior art. For example, unlike the process described by the prior art, the product of the present process is a non-tempering fat. In addition, unlike the process of the prior art, the starting material of the present process is different from the starting material of the prior art. Finally, the hydrogenation step in the present process is limited by restricting the increase of C-18-0 to less than 1 wt%.

Each of these aspects will be discussed hereinbelow

As evidence that the product of the present process is a non-tempering fat, while the product of the process described in Kawada is a tempering fat, attention is directed to the Declaration submitted herewith.

In paragraphs 5-6, the Declaration, the declarant refers to an excerpt from a general handbook on oil and fat products entitled "Bailey's Industrial Oil and Fat Products" vol. 3, 5th Ed, Wiley-Interscience Publication, NY, NY, year, p. 368-391 ("Bailey's"). The Declaration in paragraph 5 makes reference to page 381 of Bailey, where it is stated "...equivalents are fats that behave like and are compatible with cacao butter in any proportion. They do not alter the melting, processing and rheological properties of cocoa butter...".

In addition, declarant refers to the passage in Kawada which indicates that their product exhibits properties similar to cocoa butter, which is well known as a tempering fat (see Col. 1, lines 33-34 of Kawada). As stated therein,

“... Therefore, it is important commercially to increase the yield of the middle melting point part or fraction which is suitable for use as a cacao butter substitute. Further, in addition to increasing the yield, it is also important to maintain the other necessary properties of the product as a cacao butter substitute; that is, the product should be solid at room temperature but it should rapidly melt near or at body temperature and, on blending with natural cacao butter, its melting point should not be lowered and it should not soften.

Thus, Kawada admits that its product does not lower the melting point of cocoa butter, and does not soften upon blending with natural cocoa butter. This characteristic is consistent with the product in Kawada being a tempering fat. In fact, as indicated in Bailey’s on Page 331, a tempering fat is compatible with cocoa butter in any proportion. On the other hand, a non-tempering fat would not exhibit such characteristics. See paragraph 6 of Declaration. Additionally, the procedure disclosed in Kawada for measuring the Solid Fat Index (SFI) is consistent with the product produced therein being a tempering fat. As described in Examples 1-2, the SFI was determined as follows: after once completely solidifying the sample in ice water bath, it was aged at 30°C for 3 days. See, Col. 4, line 58 of Kawada) and at 25°C for 3 days, respectively (Col. 4, line 53).

However, the standard procedure for SFI determination does not include an ageing process. See paragraph 6 of Declaration. Therefore, the fact that Kawada has added and mentioned the additional ageing step to the SFI- standard procedure is a clear indication that the fat produced from the process disclosed in Kawada needs stabilization or in other words needs tempering. The IUPAC standard methods for Solid Fat Content determination make a distinction between temper-types of fat and non-temper types. For instance, IUPAC method 2.150b is for

temper fats which includes an ageing step; whereas IUPAC method 2.150a is for non-temper fats which does not include such ageing step. Id.

Moreover, applicants submit that the fat obtained from the process disclosed by Kawada as tempering fat is evidenced by its full compatibility with cocoa butter in all mixing ranges. Because a tempering fat does not immediately crystallize in the stable form, but undergoes re-crystallization when not subjected to a tempering step, the SFC method for measuring the SFC content of a tempering fat includes an ageing step which allows the fat to form its most stable crystal form and avoid re-crystallization. Therefore, the ageing step disclosed in Kawada further proves that the fat obtained from the process disclosed by Kawada is a tempering fat. According to Kawada, the fat composition produced is subjected to an aging process at 30°C for 3 days. Thus, non-tempering fat compositions are not subjected to such a temperature-time-program when measuring the SFI.

The present Official Action contends that these remarks is based upon the disclosure at Col. 1, lines 71-72 of Kawada. This is incorrect, the present rejection is relied upon Example 2 of Kawada, see col. 5, lines 17 – 51.

Applicants respectfully submit that its reliance upon Col. 1, lines 71-72 of Kawada is appropriate because Example 2 of Kawada is an embodiment of the invention disclosed thereof, and thereby is certainly encompassed by the scope of disclosure at Col. 1, lines 71-72 of Kawada. Second, contrary to the Official Action's indication that col. 1, lines 71-72 of Kawada relates to a tempering fat whereas Example 2 in Kawada relates to a non-tempering fat, applicants submit that all of the examples relate to a tempering fat. Specifically, Example 2 refers to Figure 3, curve 1, which is a straight line. This straight line shows that the melting point varies only to a minor extent when blending cacao butter into the cacao butter substitute.

This is perfectly consistent with the disclosure at column 1, line 71-72 of Kawada which provides “on blending with natural cacao butter, its melting point should not be lowered and it should not soften.” Therefore, the fat of Example 2 is a tempering fat.

Furthermore, the Official Action contends that the present claims are not directed to blend of fats. Instead, they are directed to a fat with a certain glyceride composition made by hydrogenation. Therefore, it appears that the Official Action indicates that the characteristic of a tempering fat, which is that it is to be compatible with cocoa butter in any proportion, is irrelevant in establishing the difference between the non-tempering fat composition and tempering fat composition.

In response, applicants respectfully submit that the Official Action’s conclusion, which is that the unique characteristic of a tempering fat is irrelevant, is not the issue. Specifically, applicants submit that the issue is not whether or not the present claims are directed to a blend of fat or a fat. Instead, the issue is whether or not the resulting fat produced from the process of the present invention is different from that of Kawada. In this regard, since applicants have clearly demonstrated that the characteristic of the resulting fat disclosed in Kawada is consistent with the characteristic of tempering fat, it follows that the resulting fat disclosed in Kawada is a tempering fat.

To further support that the fat composition of the present invention is different from that described in Kawada, experiments were conducted which compare the fat composition of the present invention with that described in Kawada, which are described in the Declaration.

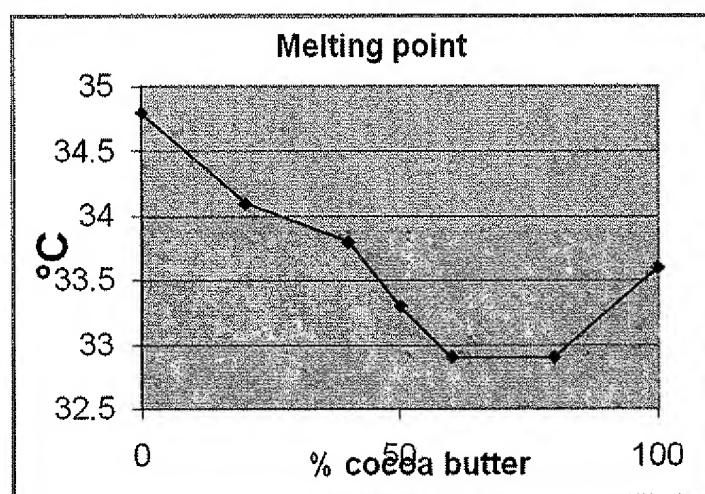
Specifically, a representative fat composition prepared by the presently claimed process was obtained by the following process as described in paragraph 9 of the Declaration. A starting fat composition was utilized, having a glyceride composition as S2U: 75.74 wt. %; SU2

+ U3: 17.03 wt. %; S3: 1.52 wt. %; and Diglyceride-content: 3.34 wt. %. Id. It was subjected to a hydrogenation reaction using a non trans specific catalyst Pricat 9910 according to the procedures described in the above-identified application.

The obtained product was a non-tempering fat ("Fat NR-1") with the following characteristics (Solid Fat Content (SFC) according to IUPAC 2.150-a): Trans Fatty Acids (TFA) content: 4.09 wt. %; SFC at 20°C: 67.5 %; SFC at 35°C: 3.4 %. Fat NR-1 was then subjected to a number of tests in combination with cocoa butter (CB). Id.

Declarant had the following assays conducted to measure the melting point of this product. See, paragraph 10 of Declaration. The melting point of Fat NR-1 was determined as the pure fat and in different blends with cocoa butter, according to the method described in Kawada, i.e., by first cooling to 5°C and keeping it overnight, then aging for 3 days at 30°C, followed by measuring the melting point at the blend. Id. The results are shown in Graph 1. Id.

Graph 1

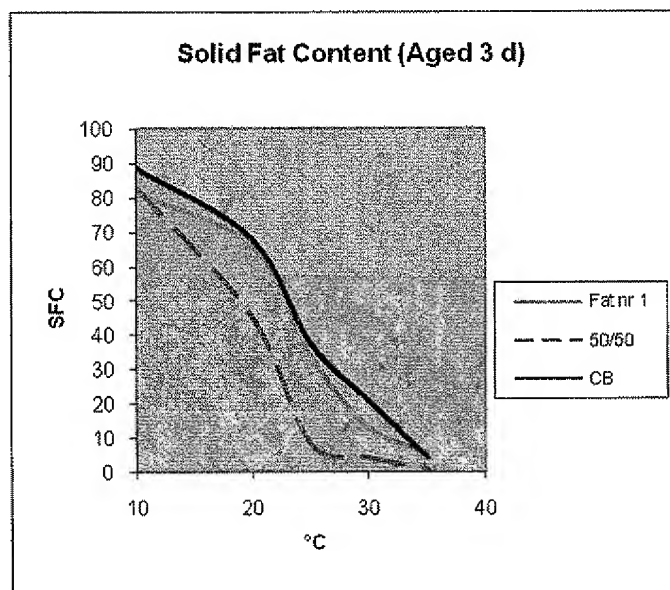


As testified by declarant in paragraph 11 and clearly shown from Graph 1, "in certain blending proportions, the melting point of the blend is lower than the melting point of cocoa butter (which is 34-35°C for the beta-type, See Table 9.9 at page 371 of Bailey's). Id. Declarant testifies that this means that the fat composition Fat NR-1 of the present application does not fulfill the

requirements of Kawada. If the product were a fat prepared in accordance with the teachings of Kawada, Kawada explains in col. 1, lines 71-72 that the melting point should not be lowered and the blend would not soften upon blending with natural cocoa butter. Therefore, since the fat obtained according to the presently claimed process does not have these characteristics, it is clear that such fat composition prepared in accordance with the present invention is a non-tempering type of fat, whereas the fat composition disclosed in Kawada is a tempering type of fat.

Another test was conducted that measured the solid fat content of Fat NR-1. See paragraph 12 of Declaration. The solid fat content was measured with NMR, applying the same cooling and aging procedure as described in Kawada, i.e. first solidifying in ice water, then aging for 3 days at 30 °C, followed by measuring the solid fat content of the Fat NR-1 and of a 50/50 mixture of the Fat NR-1 with cocoa butter (the same combinations as described in example 1 of Kawada). The results are shown in Graph 2.

Graph 2



Declarant testifies in paragraph 13 that Graph 2 shows that Fat NR-1 showed a strong eutectic effect, the solid fat content of the 50/50 combination is much lower than the two components individually. Declarant further testifies that a 50/50 mixture of cocoa butter and a tempering fat would not exhibit this eutectic effect for the reason explained by Bailey's, since a tempering fat is compatible with cocoa butter. Id. According to Declarants, this data show that Fat NR-1 is not a tempering fat, as disclosed in Kawada, but rather a non-tempering fat composition.

Furthermore, another test conducted was the chocolate application test. See paragraph 14 of Declaration. This assay investigated whether Fat NR-1 is suitable for use as a cocoa butter substitute by utilizing the process for making chocolate which includes a tempering step with fat NR-1 and cocoa butter. A coating was prepared comprising Fat NR-1 and cocoa butter in a ratio of 85.4% / 14.6%. A dark chocolate product (tablet) with 100% cocoa butter was prepared as a reference. The products were prepared as follows: after the fat had been made molten, all ingredients, except part of the fat, were mixed and roll refined. Then the mixed ingredients were further homogenized with the rest of the fat in a mixer with heated jacket at a temperature of 40°C. Samples of this blend were taken and tempered at different conditions. For each sample, the viscosity, and the minimum and reheating temperature applied during tempering were recorded. The tempered products were moulded, cooled for 30 minutes at 5°C and thereafter for 30 minutes at 15°C, following which the products (tablets) were de-moulded. The de-moulding properties (shrinkage) were also checked. Thereafter the products were stored in an incubator at 20°C. The appearance of the products was checked after 3 weeks. The results of these tests are summarized in Table 4.

Table 4

Fat NR 1	visual appearance					
	T min	T reheat	viscosity	demoulding	after demould	after 3 weeks
test 1	26.5	30.5	OK	very bad	OK	bloom
test 2	24.3	26.5	OK	very bad	OK	bloom
test 3	23.8	25.9	high	bad	start bloom	bloom
test 4	23.8	25.8	high	reasonable	start bloom	bloom
cocoa butter						
	26.5	30.5	OK	good	OK	OK

Declarant testifies in paragraph 15 that Table 4 shows that none of the tempering conditions utilized gave a fat composition which when mixed with cocoa butter gave a stable product. The viscosity was found to be too high to achieve adequate tempering, and all products showed quick fat blooming (white surface), indicating that the fat was not stabilized properly. Therefore, as testified by Declarant in paragraph 15, it is clear that Fat NR-1 can not be utilized by Kawada. As such, this experiment confirms that Fat NR-1 is a different type of fat than the fat disclosed in Kawada.

The different characteristics of the fat compositions of the present application and the fat compositions disclosed in Kawada are further established by the following experiment. See paragraphs 16 and 17 of Declaration. A representative fat composition according to the above-identified application, identified as Fat NR-2, was prepared starting from a fat with the following glyceride composition: S2U: 69.51%; SU2 + U3: 18.57%; S3: 1.29 %; Diglyceride-content: 8.85 %. The starting fat was hydrogenated with a catalyst Pricat 9910 and gave a fat composition with the following characteristics: TFA-content : 7.71 % ; SFC 20°C : 71.1 % ; SFC 35°C : 11.3 %. Fat NR-2 was then used to make a confectionery coating using the ingredients in the amounts set forth below in Table 5.

Table 5

<u>Coating Recipe</u>	%
Fat	34.8
Sugar	49.8
Cocoapowder 10/12	15
Lecithine	0.4
Vanilline	0.02

As Declarant testified in paragraph 17, the procedure utilized for the preparation of the above coating was the same as described above in the chocolate application test, except that no tempering was applied before moulding. Id. The tablets could be easily de-moulded. Id. The resulting tablets were then stored in an incubator at 20°C to check their stability. After 9 months storage, the tablets still exhibited no fat bloom (no white appearance). Id. Further, no crystals or defects were seen at the surface and the tablets remained very glossy. Id.

To demonstrate the difference with cocoa butter, the following tests were conducted: a molten dark chocolate, containing only cocoa butter and no confectionery fat, was moulded and solidified applying the same cooling procedure as given above, but without any tempering step. The result was that big crystals appeared at the surface of the tablets with cocoa butter in less than one day.

As a comparison, declarant had repeated the experimental described above, except tempered cocoa butter, as in Kawada, was utilized. See paragraph 18. Its appearance was very similar to the one made with the Fat NR-2. Therefore, the conclusion is that the fat composition obtained from the present application is stable without tempering, and thus is a non-tempering type of fat. On the other hand, the fat composition in Kawada is not stable without tempering.

The Declarant thus concludes in paragraphs 19 and 20 that the experiments show that the fat composition prepared in Kawada and the fat composition prepared in accordance with the

present application are quite different. The fat prepared in Kawada is a tempering fat, while that produced in accordance with the present application is a non-tempering fat. Thus, the fat produced in accordance with the present application has different characteristics and properties relative to the fat described in Kawada. As such, the conclusion is compelling that fat produced by the present process is not taught, disclosed or suggested by Kawada. Moreover, the process of preparing the non-tempering fat composition of the present invention is not taught, described or suggested by the process described in Kawada since the latter process produces a tempering fat and not a non-tempering fat, as claimed.

Applicants respectfully submit that the starting fat composition used in the presently claimed process is different from that of Kawada for several reasons below:

1. Kawada does not disclose the triglyceride composition of the fat that is subjected to hydrogenation. In Kawada, use is made of a palm mid fraction. Palm oil is subjected to a fractionation to obtain the palm mid fraction. As palm oil is a natural product, its composition will vary. Moreover, the fractionation process may be carried out in several ways and thus usually not result in end products with the same composition.

2. The starting fat composition of the present invention contains 3-12 wt. % of diglycerides. In contrast, it is nowhere disclosed in Kawada that the fat composition that is subjected to hydrogenation contains diglycerides, let alone the specific weight percentages of diglycerides. Further, Kawada does not disclose that the content of unsaturated fatty acids in the starting fat composition, which is subjected to hydrogenation, is less than 55 wt. %.

Further, the process step of the present invention is not taught, described or suggested by Kawada. In the present invention, the hydrogenation is carried out in a quite specific way. Specifically, according to Claim 30, the hydrogenation is carried out in such a way

that the increase of C18-0 upon hydrogenation is less than 1 wt. %. This means that hydrogenation is carried out in such a way that the formation of fully saturated fat is limited. Natural fats contain C18-1, C18-2 and possibly C18-3 unsaturated fatty acids. According to the present invention, hydrogenation is carried out in a such a way that the increase of C18-0 upon hydrogenation is less than 1 wt.%. This feature is important because saturated fatty acids have adverse health effects as well as trans fatty acids. In this regard, Kawada does not have any teaching or suggestion that hydrogenation is carried out in a such a way that the increase of C18-0 formation is to be limited, e.g., less than 1 wt.%. Kawada merely teaches to carry out hydrogenation in such a way that the trans fatty acid content is not above 5 wt.%.

In view of the above remarks, together with the results of the experiments as shown in the Declaration and discussed in the response submitted October 24, 2008, the fat composition in Kawada and the fat composition of the present application are quite different. The fat prepared in Kawada is a tempering fat, while that produced in accordance with the present application is a non-tempering fat. Thus, the fat produced in accordance with the present application has different characteristics and properties relative to the fat described in Kawada. Moreover, as indicated hereinabove, the starting material of the present process is quite different from that in Kawada. Since the starting material in the present process is quite different from that in Kawada, the hydrogenation process of the present invention subjects a totally different starting material than the starting material in Kawada to hydrogenation. Moreover, as shown above the process of preparing the non-tempering fat composition of the present invention is not taught, described or suggested by the process described in Kawada since Kawada does not teach or suggest the limiting the hydrogenation so that the increase of C-18-0 upon hydrogenation is less than 1 wt%. As such, the

conclusion is compelling that fat produced by the present process is not taught, disclosed or suggested by Kawada.

Regarding the secondary reference, Deffense, applicants respectfully submit that the teachings in Deffense are not relevant. Specifically, Deffense is a general publication which discloses the triglyceride composition of palm oil fractions of different origins and fractions. It does not teach, disclose or suggest the presently claimed process where the resulted product is a non-tempering fat or the fat composition prepared by said process, or a product containing said fat composition. Further, applicants submit that Deffense discloses the composition of palm oil after a single stage fractionation (see pages 377-378) and the composition after a double stage fractionation (see page 383). As shown from Deffense, the SU2 + U3 concentration of the palm oil fraction may vary within wide ranges, e.g. from 34.1 – 51.6 %. Deffense does not disclose or suggest anything on hydrogenation. A review of Deffense clearly establishes that it does not even mention hydrogenation. Thus, the combination of Kawada and Deffense does not teach or suggest that hydrogenation would be carried out in such a way that C18-0 formation is limited to below 1 wt. %. Moreover, the combination would not teach or suggest that the limitation of the hydrogenation reaction in that way in combination with the composition of the starting fat which is subjected to hydrogenation, results in a non-tempering fat.

Therefore, neither Kawada nor Deffense alone or in combination teach, disclose or suggest a process of preparing the same a non-tempering fat, as claimed.

Case law has held that a claim for obviousness under §103(a) depends on at least four underlying factual issues set forth in Graham v. John Deare Co. of Kansas City, 383 US 17 (1966): (1) the scope and content of the prior art: (2) differences between the prior art and the claims at issue; (3) the level of ordinary skill in the pertinent art and (4) evaluation of any relevant

secondary considerations. A proper obviousness determination requires comparing the subject matter of the claims as whole to the prior art. In re Ochiai, 71 F3d 1565, 1569 (Fed. Cir. 1995). When done properly, this test inevitably becomes fact specific. Id.

When comparing the facts, it is apparent that neither the reactants nor the products are taught, disclosed or suggested by the cited references. As described hereinabove, the combination has an entirely different product. As described hereinabove, the product of the present invention is a non-tempering fat, while that of the combination is a tempering fat. The reactants are also quite different. Further, even though the combination may suggest hydrogenation, the combination does not teach, disclose or suggest the carrying out of the hydrogenation in such a way that the increase of C-18-0 upon hydrogenation is less than 1 wt%, i.e., to limit the amount of fully saturated fat. The combination merely teaches carrying out the hydrogenation so that trans fatty acid is not above 5 wt%. The combination does not teach, disclose or suggest the reactants or products or the hydrogenation step limitation. Consequently, an analysis of the facts make it quite clear that the combination cannot teach, disclose or suggest the present process.

In view of the above remarks, applicants submit that the §103 rejection has been obviated, and thus reconsideration and withdrawal of the instant rejection is respectfully requested.

Furthermore, in the Official Action, Claims 45 and 58 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Kawada as further evidenced by the specification on page 10, lines 3-21 and Deffense, and further in view of U.S. Patent Application Publication No. 2004/0146626 to Higgins et al. ("Higgins"), U.S. Patent No. 4,161,483 to Cahen ("Cahen"), and U.S. Patent No. 6,265,596 to Harrod et al. ("Harrod").

Specifically, with respect to Claim 45 wherein the hydrogenation catalyst is Ni, the Official Action avers that a person skilled in the art, in view of the teachings of Higgins, Cahen and Harrod wherein Ni is used as a hydrogenation catalyst to produce low levels of trans acids, would substitute the copper-chromium-manganese oxide catalyst disclosed in Kawada by Ni to arrive to the present invention.

Regarding Claim 58 wherein the fat composition is recited as a non-temper fat, the Official Action avers that a person skilled in the art would not expect that the hydrogenated fat disclosed in Kawada to be a tempering fat. Furthermore, the Official Action alleges that hydrogenating combinations of oils is well known in the art, so a person skilled in the art would expect that some of these fats would be non-tempting fats.

It is to be noted that since Claim 58 is cancelled, the rejection against Claim 58 is moot.

Applicants reiterate the comments hereinabove with respect to Kawada and Deffense, the contents of which are incorporated by reference. As described hereinabove, the fat composition prepared by the process recited in the claims as well as the product prepared by the process of the present invention is a non-tempering fat composition, while the teachings of Kawada and Deffense suggest a tempering fat.

The Office Action has cited Higgins, Cahen and Harrod to substitute the catalyst described therein for the catalyst used in Kawada. Applicants respectfully submit that this combination is improper for there is no motivation to make the substitution. The decision in KSR International Co. v. Teleflex Inc., 127 Set. 1727 (2007) acknowledges the importance of identifying a “reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in a way the claimed new invention does”. KSR at 1741. It still remains

necessary to identify some reason that would have motivated one of ordinary skill in the art to modify the teachings in a prior art to establish a case of prima facie obviousness. Takeda Chemical Industries Ltd. v. Alphapharma Pty. Ltd., 492 F.3d 1350, 83 USPQ 1169 (Fed. Cir. 2007). Moreover, if the proposed modification would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

Applicants respectfully submit that there is no motivation for one of ordinary skill in the art to combine the references of Kawada and Deffense with Cahen, Higgins and Harrod et al. because the proposed modification by the USPTO may not achieve the objective in Kawada and may change the principle of operation of Kawada.

Specifically, applicants submitted that the objective in Kawada is to make a cocoa butter substitute that should melt near or at body temperature and blend with natural cocoa butter, so that the resulting melting point is not lowered. That is, the objective was to make tempering fat, contrary to the allegations of the Official Action. Thus, to maintain those properties, one does not arbitrarily utilize the teachings of references which suggest the use of other catalysts, unless these catalysts would maintain the fat as a tempering fat. One skilled in the art understands which catalysts to use to maintain a tempering fat. Although Kawada indicates that it wishes to limit the amount of trans acid content to less than 5%, it does not discuss whether the hydrogenation of unsaturated C₁₈ fatty acids to C₁₈ saturated fatty acids is limited. To make non-tempering fats, both the formation of trans fatty acids is limited and the hydrogenation of unsaturated C₁₈ fatty acids to C₁₈ saturated fatty acids is limited. Thus, since the goal of Kawada is to produce a tempering fat, one of ordinary skill in the art would not utilize specific catalysts that would not make a tempering fat and therefore would not combine the

teachings of Kawada with a reference which when applied could make any other type of fat, and/or create a product which is contrary to the intended purpose of producing a temper fat.

Applicants, thus, submit that there would be no motivation to combine the teachings of Kawada and Deffense with Higgins, Cahen and Harrod, unless the resulting product is a tempered fat or the resulting process produces a tempering fat, which teaches away from the process and compositions of the present invention for making a non-tempered fat.

Moreover, even if combined, the combination would not teach, disclose or suggest a process that would utilize the starting materials or to limit the amount of hydrogenation as claimed. Further, the combination would still suggest producing a tempering fat, and not a non-tempering fat, as claimed. Thus, applicants reiterate the comments hereinabove regarding the previous §103 rejection, the contents of which are incorporated by reference.

In response, the Official Action does not specifically address applicants' position that there would be no motivation for a person skilled in the art to combine the teachings of Kawada and Deffense with Higgins, Cahen and Harrod. Instead, the Official Action contends that the limitation of non-tempering fat composition is a preamble limitation that carries no weight in the process claim.

In response, applicants submit that in view of the above-described amendment to Claim 30, applicants submit that the limitation, which is that the resulted fat composition from the claimed process is of non-tempering fat, is recited in the main body of the claim, and therefore it carries weight in the presently claimed process.

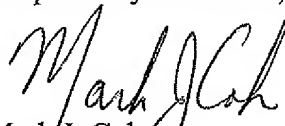
Further, Claim 45 is dependent on Claim 30 and therefore incorporate all the limitations of amended Claim 30 through such dependency. Consequently, Claim 45 is patentably distinguished over the disclosure of Kawada as further evidenced by the specification

at page 10, lines 3-21 and Deffense for the same reasons explained hereinabove for amended Claim 30. Applicants submit that the tertiary references, e.g., Higgins, Cahen and Harrod, are cited to substitute the catalyst described therein for the catalyst used in Kawada, rather than to overcome the deficiency of the primary and secondary references as discussed above. Further, applicants submit that no where in the cited tertiary references disclose the non-tempering fat composition as claimed or the process of preparing the same or a composition containing same, as claimed. Furthermore, applicants submit that Cahen, Higgins and Härröd relate to the hydrogenation of fats in such a way that formation of trans fatty acids is minimized. However, there is no teaching or suggestion in any of these references to carry out hydrogenation in such a way that the increase of C18-0 upon hydrogenation is less than 1 wt. %. Therefore, applicants submit that Claim 45 is not rendered obvious by the teachings of the cited references.

Therefore, this rejection under 35 U.S.C. §103 is overcome, withdrawal thereof is respectfully requested.

In view of the foregoing amendments and remarks, it is firmly believed that the subject application is in condition for allowance, which action is earnestly solicited.

Respectfully submitted,



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